



# Introducing the African Chicken Genetic Gains project

A platform for testing, delivering, and continuously improving  
tropically-adapted chickens for productivity growth in sub-  
Saharan Africa

*Tadelle Dessie, ILRI*

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# Background



## *Chicken –in SSA*

- Large in number and wide in distribution
- Multi-use animals utilized across a range of production systems
- Low-productivity but high-potential for growth
- Critical for income generation, nutrition & women empowerment

# Production systems in SSA



- Village production system
- Small-scale production system
- Commercial production system

⇒ **Based on:**

- Objectives of the producer
- Type and number of animals
- Management system followed

# Village production system



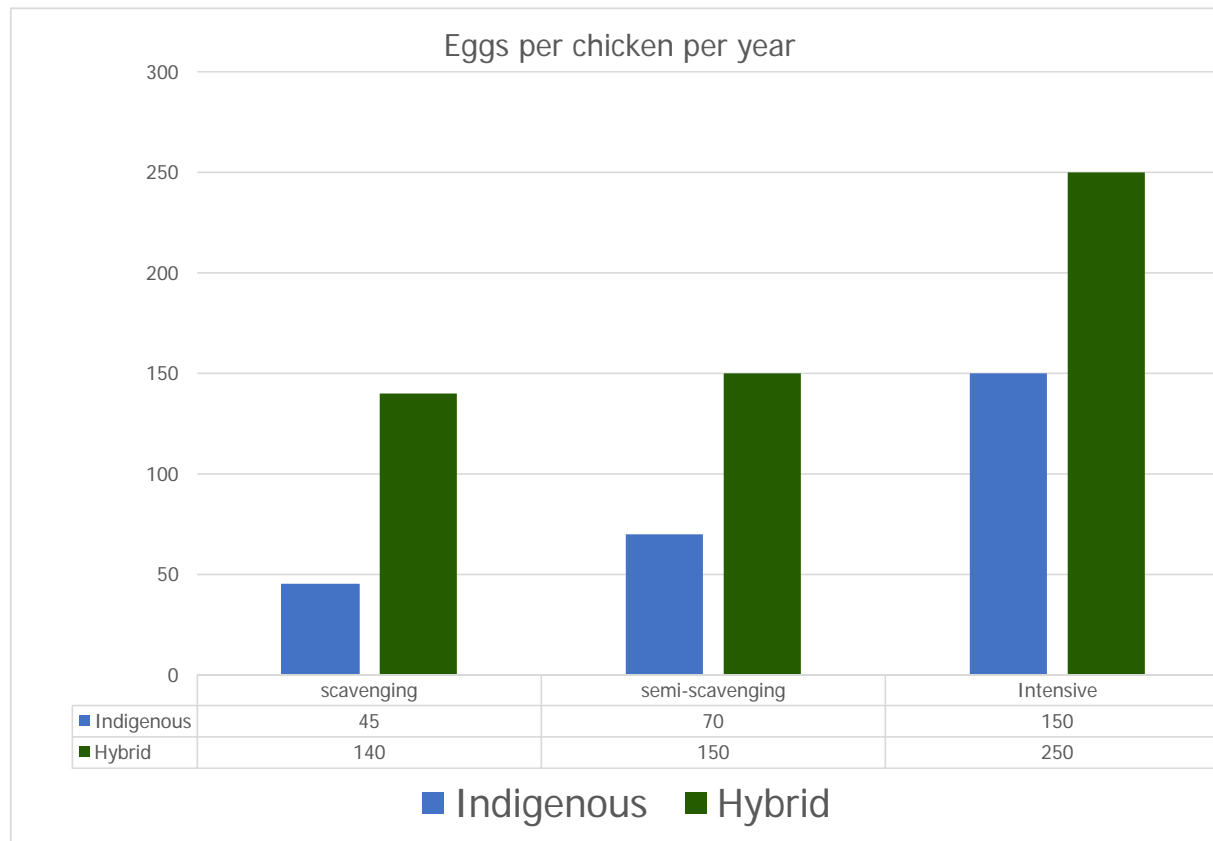
## ⇒ **Predominant system in SSA**

- 60 to 95% of chicken population
- 40 to 90% of meat & egg production
- Source of protein and small cash
- High percent of market

## ⇒ **Little attention to the system and animals**

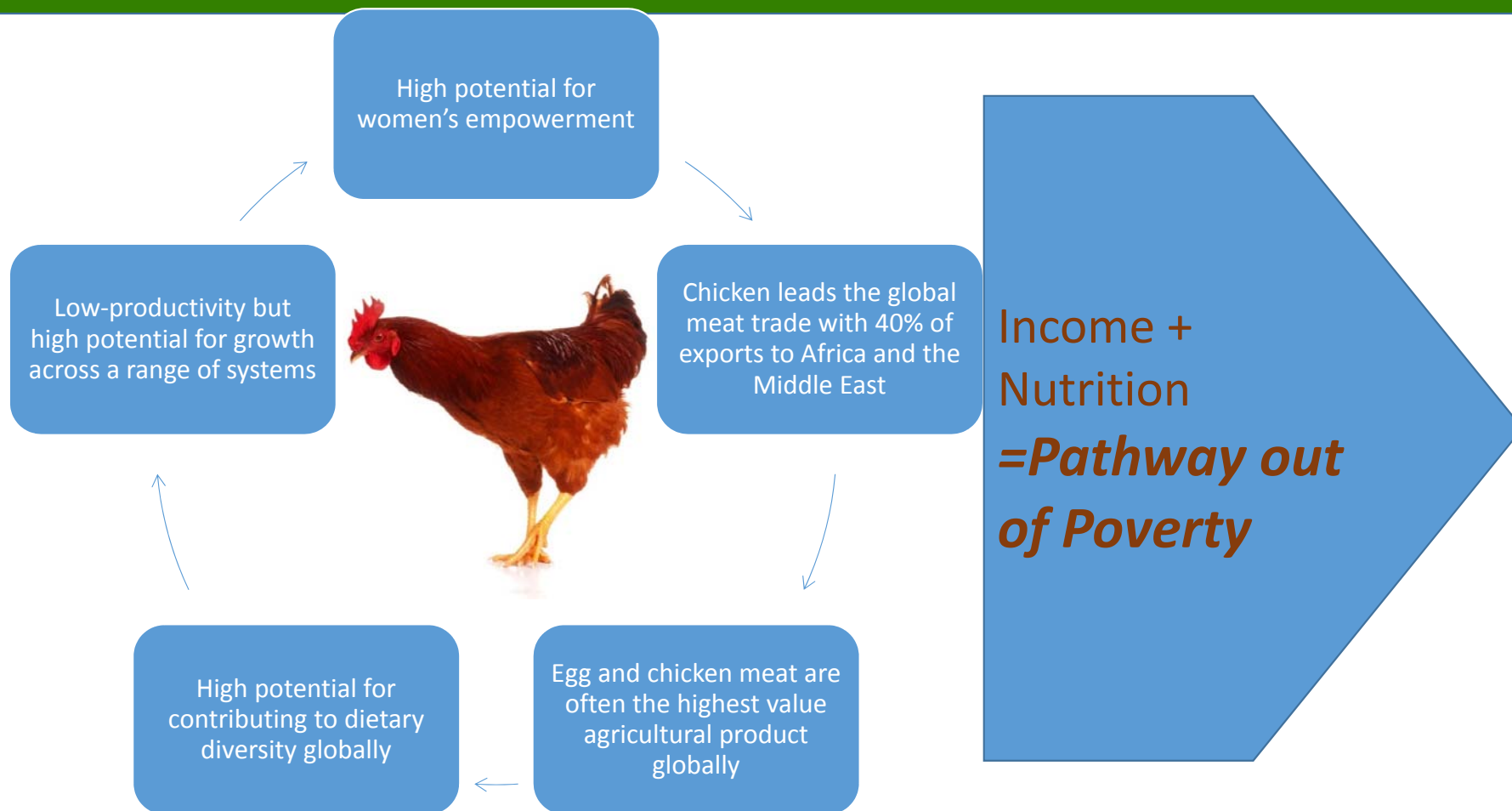
- Resulting in low productivity
- Little improvements to the system/animals
- Resulting in overall inefficiency

# Background - Yield gaps in chicken production in Africa: the opportunity



**Sources:** The data for the hybrid used here are from Kuroiler from an Indian environment (Ahuja et al., 2008); while for indigenous birds the data are from Hill and Modebe 1961; Oluyemi and Oyenuga, 1971; Akinokun and Dettmers, 1976; Nwosu et al, 1979; Nwosu and Omeje, 1985; and Sonaiya, 1990. Dessie, 1995 etc

# Opportunity



# Background –Past attempts of improvement and the way forward



## *What has happened in the past?*

- Emulate the poultry industry found in the developed world
  - Most of these historical attempts at intensive, grain-driven, poultry production in Africa typically failed
- Cockerel exchange, pullet exchange and 'hatchable' eggs distribution programs
  - These programs again generally failed to achieve sustained impact and were not successful in transforming productivity
- Chicken production has historically presented tremendous growth opportunities in Africa BUT needs an innovative approach
  - “If we could establish a sustainable productivity program of chicken improvement, then we could produce more meat and eggs that would lead to more food, less poverty and more income”

*What are we doing different?*

## *ACGG Five Pillars of Change*

1. High-producing genetics that is well-adapted to low-input production systems;
2. Farmer preferred breeds of chickens;
3. Innovation platforms for developing solutions across the value chain;
4. Public-private partnership for improvement, multiplication, and delivery;
5. Women at the center to ensure success.

# Vision

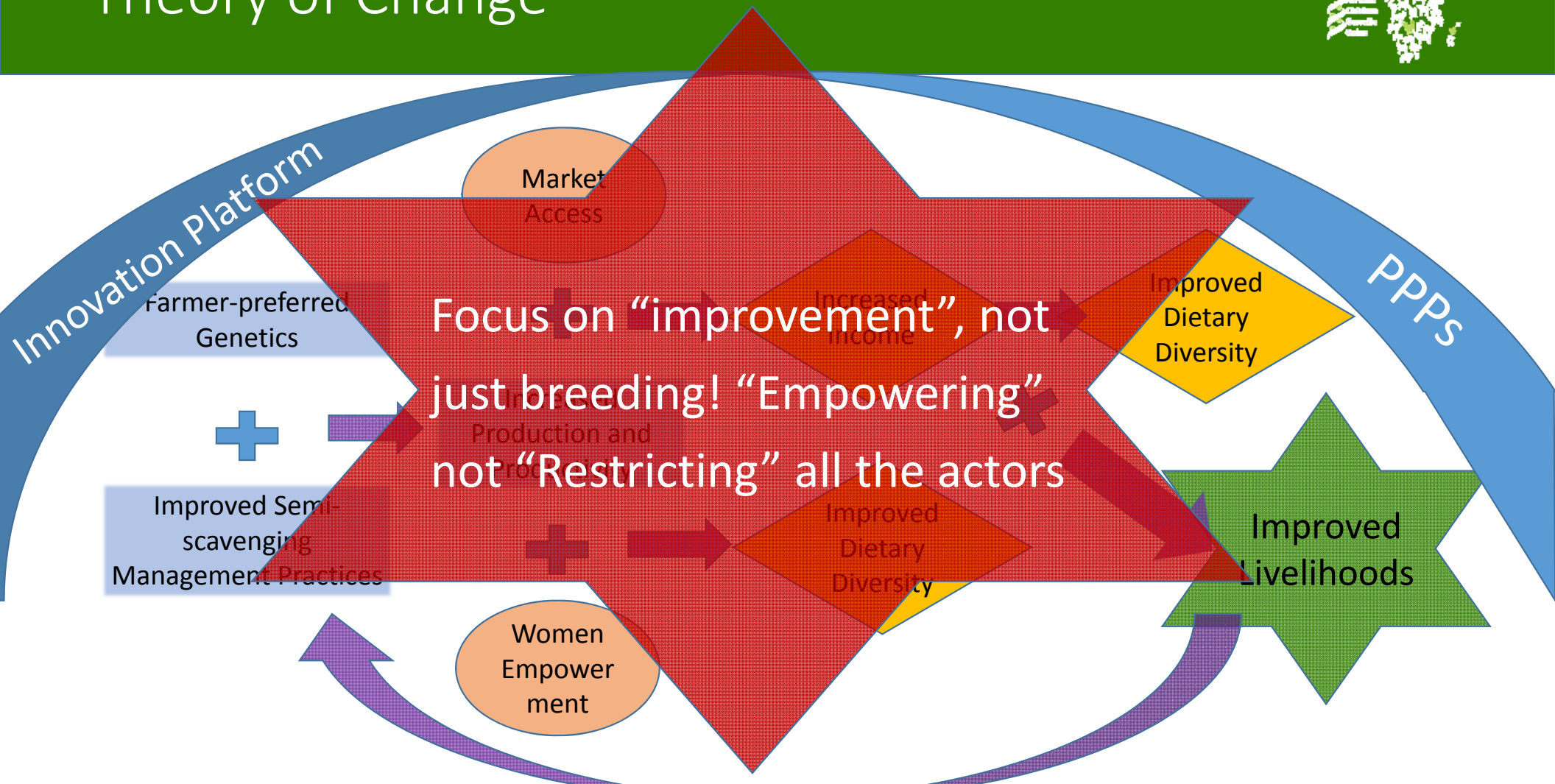


## *Our Vision*

The vision of this program is to catalyze public-private partnerships for increasing smallholder chicken production and productivity growth as a pathway out of poverty in sub-Saharan Africa.



# Theory of Change



# Impact Beneficiaries



Photo: [www.impatientoptimist.com](http://www.impatientoptimist.com)

## Who benefits?

- **The poor:** Targeting individuals living on <\$2 / day -2.6 billion people in the world
- **Smallholders:** Targeting individuals with low flock sizes but a high percent of income from poultry
- **Women:** 70% of poultry keepers are women

## How do they benefit?

- **Income**
- **Nutrition**
- **Capital accumulation**



# Why (only) Genetics?



Identifying and delivering appropriate livestock genetics in developing economies is complex, but appropriate genetics can deliver substantial and long-lasting benefits

As seen in the developed world, huge gains can be unlocked through genetics

Fully benefiting from any intervention requires a systems approach, a context-specific strategy, understanding of the socio-economic landscape, and consideration of the existing value chain

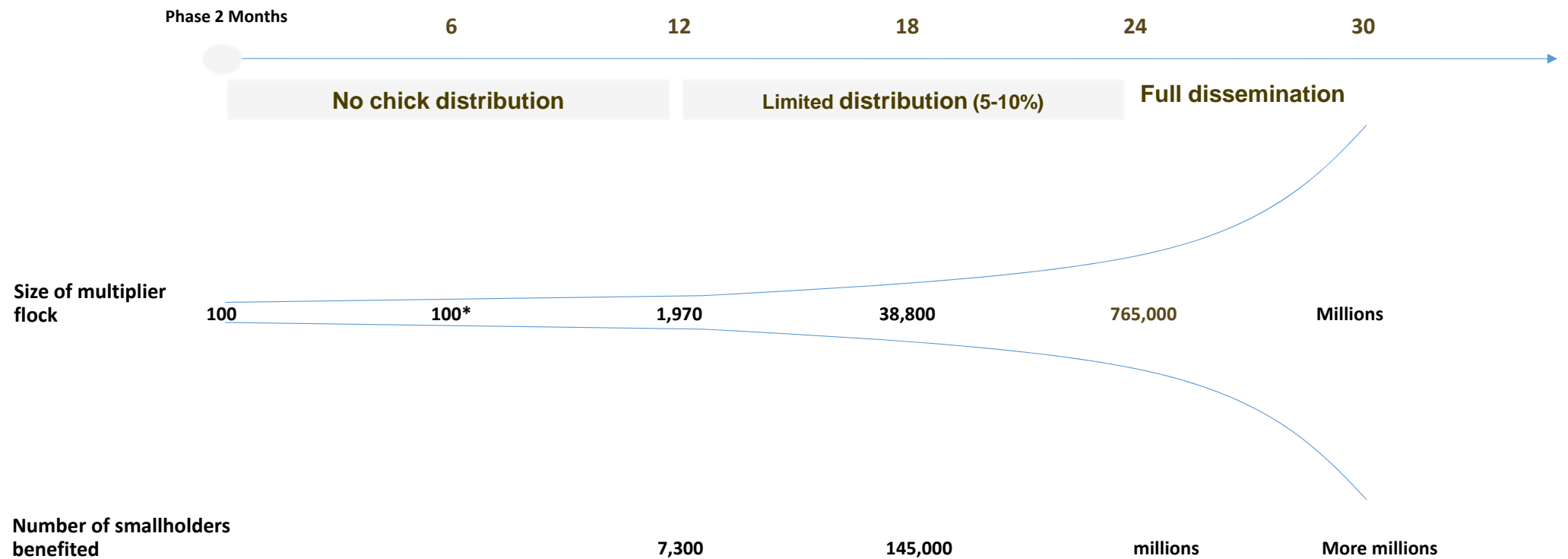
This sustainable genetic improvement program can be the primary driver for change  
—GET the Genetics right and it will serve as a systemic pull factor

Be a catalyst and pull factor for improving the wider system —triggering input supply and better marketing in a developing chicken value chain

and...

Unlike many other types of intervention, benefits can span generations.

## Chicken's high rate of reproduction enables rapid scale - distribution could begin after 18 months



This model can be implemented simultaneously in multiple geographies.

# Partnership - Integrated into ACGGs core business



Partnership is  
Key!

**Communication-**  
*Move beyond  
informing to  
engagement*

**Support-***Provide  
support to  
partners*

**Service-***Serve the needs  
of key partners (capacity  
building, resource  
mobilization, etc.)*

# ACGG partnerships for impacts:

## *The give and take*



- **Development investors**  
*provide* money, influence, advocacy  
*get* better bang for their bucks, better-targeted impacts.
- **Researchers – international and national**  
*provide* evidence, capacity building (act as catalysts and facilitators providing options to farmers to make decisions based on scientific evidence)  
*get* co-development of new science.
- **Multinational agencies**  
*provide* policies, advocacy, means to scale up interventions  
*get* evidence-based knowledge.
- **Development partners**  
*provide* relevance, reality checks, expertise  
*get* practical science for real development.
- **Farmers (women):**  
*provide* resources, indigenous knowledge; co-create solutions to their challenges  
*get* solutions to their challenges; *Preferred yet productive chicken --continuously*

# Some facts about the ACGG program



## Project countries:

Nigeria, Tanzania and Ethiopia

**Funding:** BMGF and in kind contribution from partners

## Program period:

5 years (2014 to 2019)

## Starting date:

January, 2014)

## End date:

December, 2019

# Governance



## What is the SIAC's Role in ACGG?

*ACGG is guided by a Scientific and Industry Advisory Committee (SIAC) comprised of six leading professionals in business, research, and development. These individuals will be a key driver of ACGG's goals of a high standard of responsibility, culpability, and superior governance*



## Who is part of the SIAC?

- *Jerry Moyo, Cobb-Vantress, Inc.*
- *Marcellina Chijoriga, University of Dar es Salaam*
- *Gilberto Schmidt, Embrapa*
- *Siboniso Moyo, ILRI*
- *Donald Nkrumah, BMGFT*
- *Tadelle Dessie, ACGG-ILRI*



# ACGG management



## What is ILRI's Role in ACGG?

*ACGG team at ILRI provides leadership, technical backstopping and capacity building. Responsible for the donor (technical and financial), coordinate the identification, sourcing and testing of productive yet adaptive strains*



## Who is part of the ILRI team?

- *Tadelle Dessie –Project leader*
- *Jasmine Bruno –Coordinator*
- *Fasil Getachew – Research associate*
- *Tesfahun Alemayhu- Research Associate*
- *Hizkias Kassaye –Informationan*
- *Ayda Tegenu – Program Assistance*
- *Steve, Okeyo, Raphael, Jane, Absolomon, Luke, Linda,*

# ACGG management



## What is countries Role in ACGG?

*ACGG country team MANAGES the project implementation at country level : Baseline survey, on-farm and on-station testing, IP establishment and development, PPP management etc. Identifying and nurturing partnership as appropriate, resource mobilization, capacity building etc*



## Who are part of the Country team ?

- *PI, CO-PI, NPC, PMT members, six SNC's,*
- *Farmers in different Sub-nationals (2, 500 HHs)*
- *IP members (at different levels)*
- *Public and private sector operators*

# Partners



BILL & MELINDA  
GATES *foundation*



WAGENINGEN UR  
*For quality of life*



PICO-Eastern Africa  
*helping institutions work...*



Koepon

more productive chickens for Africa's  
smallholders

<http://africacgg.net>



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